

REMARKS

Claims 63-76 and 78 are currently pending in the application. Applicants have canceled claim 77. Applicants request reconsideration of the application in light of the following remarks.

Objections to the Specification

The most recent Office Action objects to the specification for lack of a claim of Priority. Applicant directs the Office to page 2 of the Preliminary Amendment filed with the Application which makes a proper specific reference to prior applications in the first sentences of the specification by application number and filing date. Applicants have amended the priority claim sentences in this Office Action to correct an incorrect date and to add the patent numbers to the reference for further clarity. Applicants respectfully request that the Examiner withdraw the objection to the specification.

Objections to Claims

The most recent Office Action objects to claim 78 as filed, asserting it should have been renumbered 77. For clarity, Applicant has canceled nonexistent claim 77 and indicated the claim as canceled within the complete set of claims included herein so that the numbering is consistent and so that Applicant can respond to the anticipation rejection of claim 78 made without confusion as to which claim was rejected or is being addressed. Applicants respectfully request that the objection to claim 77 be withdrawn.

Double Patenting Rejection

Claims 63-76 and 78 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-37 of U.S. Patent No. 6,543,806. In order to avoid further expenses and time delay, Applicants elect to expedite the prosecution of the present application by filing a terminal disclaimer to obviate the double patenting rejections in compliance with 37 CFR 1.321 (b) and (c). Applicants'

filing of the terminal disclaimer should not be construed as acquiescence of the Examiner's double patenting or obviousness-type double patenting rejections. Attached is the terminal disclaimer and accompanying fee.

Rejections under 35 U.S.C. 102

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claims 63, 65-69 and 71-76 were rejected under 35 U.S.C. 102(b) as being anticipated by Campbell et al. (U.S. Patent No. 6,412,811, hereinafter "Campbell"). Applicants respectfully traverse this rejection and request reconsideration of the claims.

Although 63, 65-69 and 71-76 were rejected under 35 U.S.C. 102(b) for anticipation, the rejection made on page 4 of the most recent Office Action states that Campbell does not disclose the material being aluminum and asserts that "it would have been obvious to one of ordinary skill in the art . . . to make the Campbell et al. device of an aluminum material" Apparently, therefore, the rejection made should have been an obviousness rejection under 35 U.S.C. 103(a) for obviousness and not an anticipation rejection. Applicant will respond as if an obviousness rejection were made, but will address the anticipation issue as well.

To establish a *prima facie* case of obviousness under 35 U.S.C. 103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the cited prior art reference must teach or suggest all of the claim limitations. Furthermore, the suggestion to make the claimed combination and the

reasonable expectation of success must both be found in the prior art, and not based upon the Applicants' disclosure. A failure to meet any one of these criteria is a failure to establish a *prima facie* case of obviousness. MPEP 2143.

With regard to the anticipation rejection, at a minimum Campbell does not disclose every element of either of the independent claims 63 and 71 because, as acknowledged on page 4 of the most recent Office Action, Campbell does not disclose the housing and closure member being made of aluminum. Dependent claims 65-69 and 72-76 are similarly not anticipated by Campbell, among other reasons, for depending from respective allowable independent claims 63 and 71.

Independent claims 63 and 65 were rejected based upon Campbell, on page 4 of the Office Action, with the assertion that Campbell discloses every element of the claims but for using aluminum material and that it would be obvious to use aluminum because a general worker would know to use Aluminum on the basis of its suitability for the intended use as an obvious design choice. In addition to not disclosing use of Aluminum, Campbell also does not disclose, teach or suggest that the aluminum member comprising the aluminum housing and the aluminum closure member are a "unitary aluminum member" where the aluminum closure member and aluminum housing are "integrally formed as a unitary piece" as recited by independent claim 63.

Campbell does not provide a reasonable expectation of success that use of Aluminum would work for the intended purpose or be suitable material to form Campbell's end cap and closure member. While the Examiner argues one would be motivated to simply substitute Aluminum for the conventional steel of pressurized container housing and rupture disks, the Federal Circuit has held that "obvious to experiment" is not the standard for obviousness. *In re Dow Chemical*, 5 USPQ2d 1529 at 1532 (Fed. Cir. 1988). In moving from the prior art to the claimed invention, one cannot base a determination of obviousness on what the skilled person might try or find obvious to try. The proper test requires determining whether the prior art provides an expectation of success.

Conventional pressurized container housing and closure members, like Campbell, are separate pieces formed of steel, such as stainless steel. The steel rupture disk (“closure member” in claim 63 and elsewhere in Campbell) is separately welded to the steel housing by an annular weld around its perimeter. Campbell explains at col. 3, lines 38-45 that the rupture disk or closure member 92 is affixed to surface 78 of the end cap 34 by a laser weld 94, but that it could be connected to the surface 78 by any manner known in the art such as “brazing, projection welding or electron beam welding.”

Aluminum has significantly different material properties from the conventional steel materials used for closure disks. Two of those properties are that Aluminum has a lower melting point than the steel materials used for pressurized containers, and that steel is much stronger than Aluminum. As a result of these two different material properties, prior to Applicant’s disclosure, Aluminum was not considered an acceptable material for use as a rupture disk because of the high gas pressures included within the chamber. Furthermore, because of its low melting point, Aluminum does not respond well to welding, which further weakens the material, and would not reliably function in an pressurized container like Campbell. Applicant discovered the possibility of Aluminum being suitable to form the housing and the closure member through much empirical experimentation. Applicant found that by forming the closure member and housing as a unitary member, the use of Aluminum not only achieved the advantage of a lighter unit, but did not require the welding step which was previously thought necessary. Prior to Applicant’s experiments and improvements in the art, it was impossible to reliably predict what effect use of an aluminum rupture disk would have had and how it could have been implemented effectively. Therefore, no reasonable expectation of success existed. Accordingly, independent claim 63 and dependent claim 65, for its dependence from claim 63, among other reasons, are not made obvious by Campbell.

With regard to claims 66-68 and 71-76, the most recent Office Action asserts that these claims are “product-by-process” claims. Dependent claims 66-68, regardless of what form

of claim they are, are allowable over Campbell, among other reasons, for depending upon allowable independent claim 63. Applicant will leave the response at that and not spend time discussing whether the claims are or are not product-by-process claims at this time.

With specific reference to independent claim 71 and its dependent claims, Applicant notes that these claims are not product-by-process claims. Independent claim 71 is simply a method of forming a pressurized container. There is nothing in the MPEP or in patent law that states that because a method recited in a claim happens to form a product that the claim can or should be treated as a product-by-process claim. Product-by-process claims are typically identified through the use of the magic words, “An XYZ (product) formed by the method of steps ABC.” If the interpretation of claim 71 as a product-by-process claim as offered in the most recent Office Action were followed, methods of manufacture would never be examined because they would always involve the creation of a product. Even 35 USC 101, which defines patentable subject matter, lists useful processes and manufacture as separately patentable from machines and compositions of matter. Examination of claims reciting methods of manufacturing and forming compositions of matter, therefore, cannot be avoided, and the claims narrowly declared product-by-process claims, by simply stating that the method happens to create a product.

The method of independent claim 71, while not a product-by-process claim, is, however, allowable over Campbell for reasons similar to independent claim 63. Claim 71 recites, “integrally forming as a unitary piece an aluminum member comprising an aluminum housing and an aluminum closure” Campbell, as shown in FIGs. 2-6 and 8-10, includes a closure member that is separate from the end cap and welded to it. Separately welding two pieces together is not “integrally forming as a unitary piece”. Thus, Campbell does not disclose every element of independent claim 71. Further, there is no teaching, suggestion or motivation to form the components as an integral unitary piece in the conventional manufacturing process for pressurized containers because conventional processes weld steel components together and do not form the pressurized container housing

and rupture disk from Aluminum. Thus, independent claim 71 is not made obvious by Campbell. Dependent claims 72-76 are also not obvious over Campbell, among other reasons specifically recited in each of those claims relating to methods of forming a pressurized container, for depending from allowable claim 71.

Applicants respectfully request that the rejections of claims 63, 65-69 and 71-76 be withdrawn.

Rejections under 35 U.S.C. 103

To establish a *prima facie* case of obviousness under 35 U.S.C. 103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the cited prior art reference must teach or suggest all of the claim limitations. Furthermore, the suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based upon the Applicants' disclosure. A failure to meet any one of these criteria is a failure to establish a *prima facie* case of obviousness. MPEP 2143.

Claims 64, 70 and 78 were rejected under 35 U.S.C. 103(a) as being anticipated by Campbell as applied in claims 63, 65-69 and 71-76, and further in view of Butt et al. (U.S. Patent No. 6,170,868, hereinafter "Butt"). Applicants respectfully traverse this rejection and request reconsideration of the claims.

Dependent claims 64, 70 and 78 are each allowable over the combination of Campbell and Butt, among other reasons, for depending from respective allowable claims 63 and 71. Butt does not provide the elements missing from Campbell, does not provide any further teachings, suggestions or motivation to form the housing or closure member as a unitary member, or from Aluminum in any way that would result in independent claims 63 and 71 being obvious from the combination. Distinct from Campbell, Butt does refer to Aluminum,

but only for its use in the ignition/booster material that includes 11% Aluminum powder as it is used with reference to FIG. 2(B), element 144, FIG. 5, element 240, FIG. 8, element 408, and FIG. 25, element 832. There is no teaching, suggestion or motivation provided through the combination of Campbell and Butt that makes claims 64, 70 or 78 obvious in light of their respective dependency from independent claims 63 and 71.

Applicants respectfully request that the obviousness rejections of claims 64, 70 and 78 be withdrawn.

Regarding Doctrine of Equivalents

Applicants hereby declare that the amendment made herein was not specifically made for the purpose of patentability and shall not be construed as limiting the scope of the claims or the application of the Doctrine of Equivalents.

CONCLUSION

Applicants respectfully request that a timely Notice of Allowance be issued in this case. It is requested that a two-month extension of time be granted for the filing of this response, and the appropriate extension filing fee of \$450.00 is enclosed herewith.

If any fees, including extension of time fees or additional claims fees, are due as a result of this response, please charge Deposit Account No. 50-3545. This authorization is intended to act as a constructive petition for an extension of time, should an extension of time be needed as a result of this response. The examiner is invited to telephone the undersigned if this would in any way advance the prosecution of this case.

Respectfully submitted,

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